

# Highly Efficient Light-Driven $\text{TiO}_2$ -Au Janus Micromotors

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## Supporting Videos

SI Video S1.  $\text{TiO}_2$ -Au Micromotors Motion Remotely Triggered by UV Light and a Control.

SI Video S2.  $\text{TiO}_2$ -Au Micromotors Moving Towards to  $\text{TiO}_2$  Side in Water.

SI Video S3. Motion of  $\text{TiO}_2$ -Au Micromotors in Different NaCl Concentration Environment under UV Light.

SI Video S4. Motion of  $\text{TiO}_2$ -Au Micromotors with Different Coating Layer under UV Light.

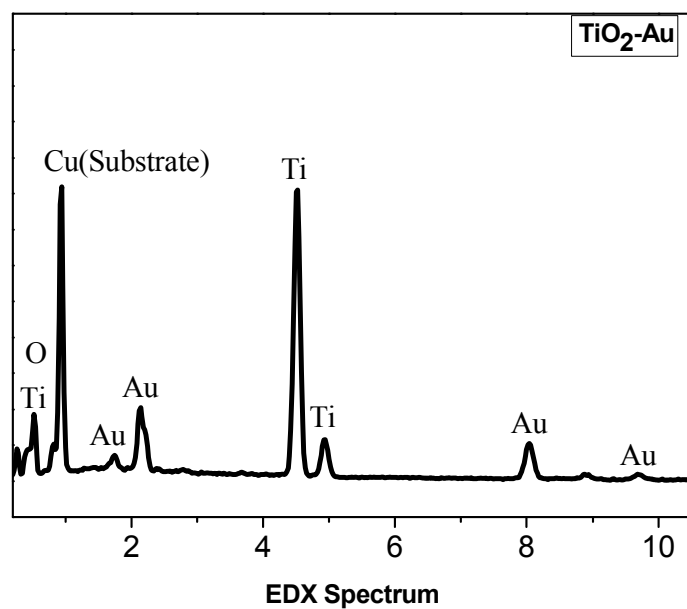
SI Video S5. Motion of Light-Driven Micromotors under Different UV Light Intensities in Water.

SI Video S6. UV Light Triggered “Stop and Go” of a Micromotor.

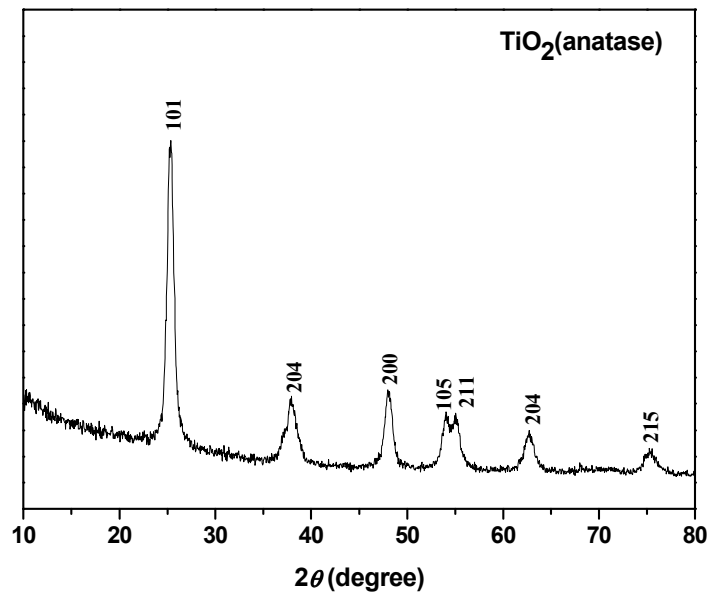
SI Video S7. Directional Control of  $\text{TiO}_2$ -Ni-Au Micromotors.

SI Video S8. Motion of Light-Driven Micromotors in Different Conditions.

## Supporting Figures



**Figure S1:** Energy-dispersive X-ray (EDX) pattern of the  $\text{TiO}_2\text{-Au}$  Janus micromotor.



**Figure S2.** XRD pattern of the TiO<sub>2</sub> microparticles.